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July 10, 2003

**Ex Parte**

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
Washington, DC 20554

**Re: Petition for Declaratory Ruling That AT&T's Phone -to-Phone IP Telephony Services Are Exempt from Access Charges, WC Docket No. 02-361; Petition for Declaratory Ruling That pulver.com's Free World Dialup Is Neither Telecommunications nor a Telecommunication Service, WC Docket No. 03-45**

Dear Ms. Dortch:

On July 9, 2003, on behalf of Verizon, Neal Bellamy, John Goodman, Joe Mulieri, Ed Shakin, and David Young met with Jeff Carlisle, Tamara Preiss, Rob Tanner, Jennifer McKee, and Aaron Goldberger of the Wireline Competition Bureau and Scott Marcus of the Office of Strategic Planning and Policy to discuss the above captioned proceedings.

The discussion focused on the two separate and distinct issues raised by the petitions, namely, the applicability of access charges to the arrangements described in the petitions, and, the appropriate regulatory classification of such arrangements. Verizon explained why the Commission must address these issues and why they can be answered independently.

With regard to the applicability of access charges to VoIP arrangements, Verizon set forth its position that, regardless of the technology platform, the Commission's rules require that access charges apply when local exchange switching facilities are used to originate or terminate interstate interexchange voice traffic.. In particular, Verizon opposed the argument that the ESP access charge exemption covers such VoIP use of access services. This argument has been used to support gaming by some carriers to reconfigure their long distance service specifically to avoid access charges. Verizon urged the Commission to act now to confirm the applicability of its existing access charge rules when local exchange switching facilities are used to originate or terminate long distance calls regardless of the intermediate technology used. The attached diagrams, based on Verizon's understanding of the arrangements described in the petitions, were used during the discussion.

Verizon emphasized the fact that appropriately applying access charges to these services does not affect how they should be regulated. To the extent these services are provided over broadband connections, the Commission's upcoming decisions in the broadband dockets should set a framework for the regulatory classification of VoIP. To the extent that issues still remain after these decisions, the Commission should promptly resolve them. Also, attached are excerpts from analyst reports and two recently published articles (USA Today and Cable Datacom News) concluding that VoIP is here now and the potential impact it will have on the industry.

Should you have any question, please do not hesitate to contact me.

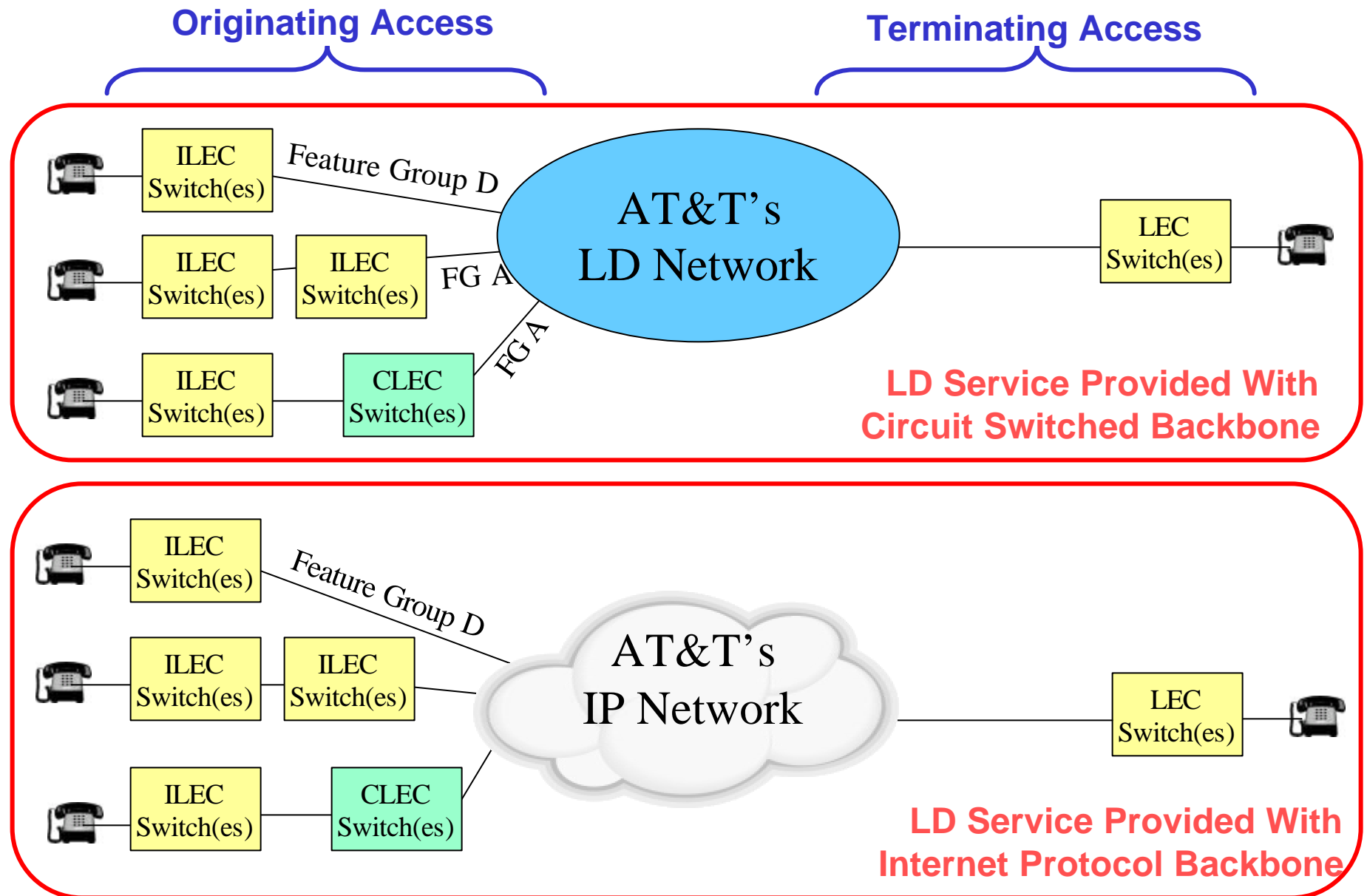
Sincerely,

A handwritten signature in cursive script, appearing to read "Joseph D. Miller".

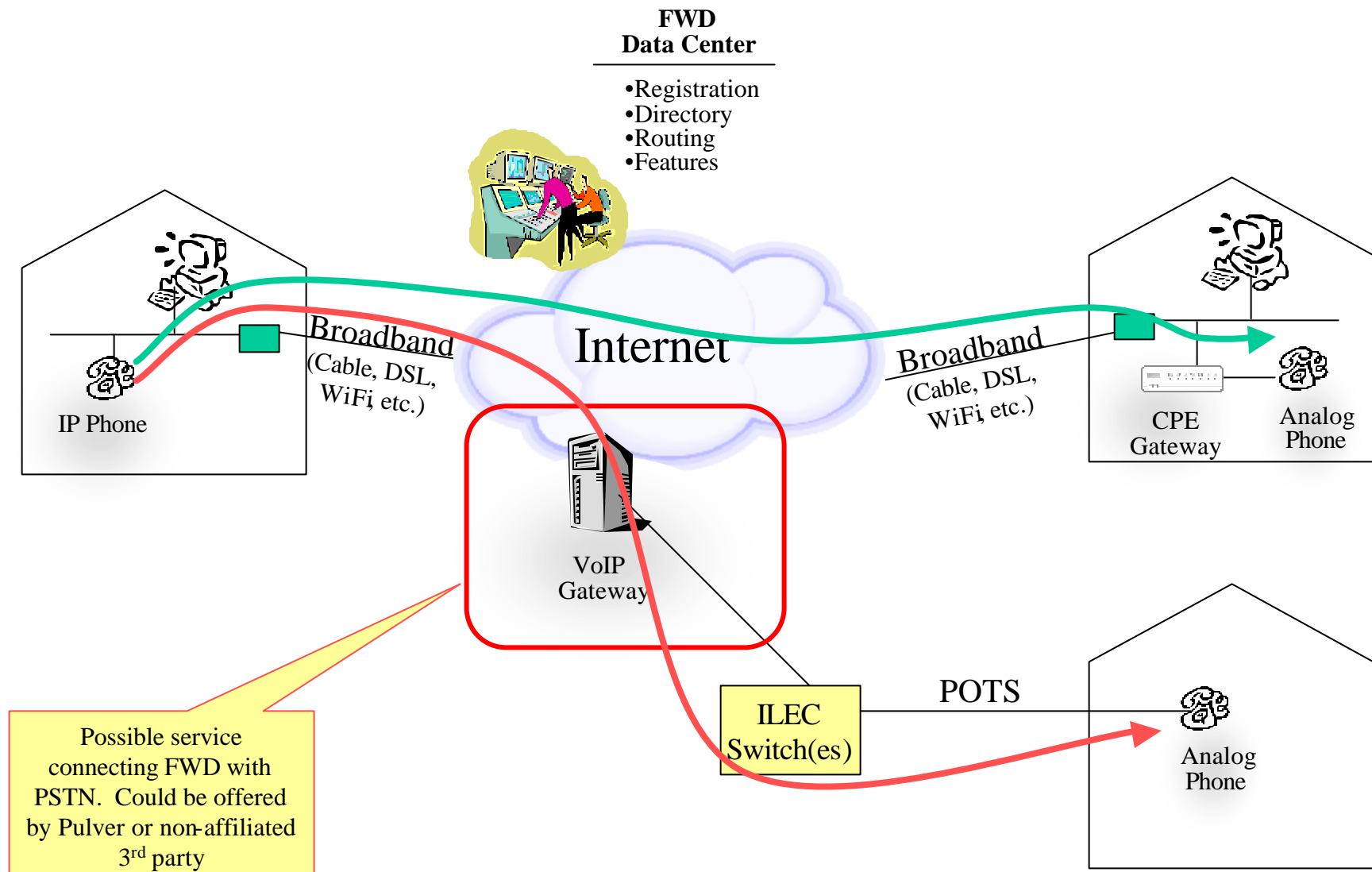
Attachments

cc: J. Carlisle  
T. Preiss  
J. McKee  
A. Goldberger  
S. Marcus  
R. Tanner

# AT&T's Petition



# Free World Dial-Up



## Excerpts from relevant analyst reports:

Goldman Sachs, "VoIP, The Enabler of Real Telecom Competition – A New Report", July 8, 2003, Frank J. Governali & Gregory Regan

"VOIP IS HERE NOW - IT IS NOT A FAR OFF EVENT THAT CAN BE OVERLOOKED"

" AS VOIP GAINS TRACTION, EVERY CARRIER GROUP WILL BE IMPACTED All segments of the telecom industry, and also many outside of telecom (i.e. cable), will feel the impact of VoIP as it gains more traction. The impact will be on both the competitive front and the operating front.

First, on competition: the Bells would feel the pressure of competition from start-ups using VoIP as the platform to offer service, and even more pressure from cable operators using VoIP to offer cable telephony at bundled, discount prices. The IXC's could be squeezed as the start-ups pressuring the local service providers grow in scale and customers by-pass both the local and LD carriers through their broadband connections."

"THE BELLS FACE ATTACK FROM THREE SIDES The Bells have the most to lose as retail and business customers start to view VoIP as a viable and reliable alternative to POTS ('Plain Old Telecom Service') service. Given the different flavors of VoIP, and the wide range of companies offering VoIP service, we see the Bells being attacked from at least three different sides: (1) from Web-based carriers such as Vonage, marketing directly to the customer who has a broadband connection (and in some cases this is not even an issue); (2) from cable companies partnering with third-party VoIP solution providers; and (3) from cable companies that decide to roll out their own VoIP cable telephony solutions."

"As competitive carriers gain traction, and cable operators decide to aggressively roll out cable telephony (which will be VoIP unless circuit-switched systems are already in place) the telcos would begin to feel the negative impact, much in the same way they felt the impact of local competition from competitors using UNE-P. The difference is that **competition from carriers using VoIP is true facilities-based competition that is sustainable and not dependent on regulators for its existence.**

Unlike UNE-P, a customer lost to VoIP over a cable modem, represents the loss of 100% of the customer revenue, not just the UNE-P discount (as damaging as it already is.)"

In-Stat MDR, "IP Telephony – A Consumer Application Worth Hearing", June 2003,  
Daryl Schoolar

"Broadband is ushering in a new era in IP Telephony, where the service delivers greater functionality and features, but still at a lower cost than traditional voice service."

"... growth in IP Telephony will come from the Device-to-Phone model, since the caller is no longer tethered to the PC to place the call. This model most resembles the traditional method for making voice calls. Also broadband allows for greater call quality due to the increased bandwidth of the Internet connection.

**Growth in broadband households will help to spur growth in this IP Telephony scenario."**

"Many of the early services, especially those over dial-up, lacked for quality. Excessive echo or "tinny" quality affected the sound. This turned off many of the early proponents of IP Telephony. **This has been somewhat overcome due to improvements in VoIP technology and the increase of broadband connections.** Also, cellular phones have helped to lower consumer expectations for voice quality as well, making consumer more accepting of the voice quality below the standards of traditional wireline services."

"As Device-to-Phone service grows, In-Stat/MDR expects to see the emergence of more services that satisfy the requirements for primary line service, especially from the cable operators. Eventually IP Telephony will grow, so that consumers no longer see it as a specific service, but merely an underlying transport technology. **Eventually IP Telephony will be the POTS."**

Merrill Lynch, “Voice Over Broadband – The Challenge from VoIP in the Residential Market”, June 24, 2003, Adam Quinton, Glen Campbell & Jessica Reif Cohen

“In this report, we argue that North America’s residential telephone market faces potentially dramatic changes from VoIP (Voice over Internet Protocol) technology. After several years in gestation (and a long tech/telecom spending hiatus), VoIP is starting to be deployed commercially by cable companies and “virtual” service providers such as Vonage. VoIP capabilities are also being built into an increasing range of hardware and software — including instant messaging software (and, most recently, into Microsoft’s Windows CE).”

**“We are now seeing “virtual” phone-to-phone services** that use the public Internet, thanks to recent innovations including SIP (“Session Initial Protocol”) and low-cost phone adapters. The most prominent of these is Vonage, which has some 30K subscribers who connect via DSL or a cable modem for service that operates much like (and in some ways better than) conventional phone service. These services represent potential competition for cable telephony – and they provide a business model that cable operators and others (such as long distance carriers) could follow.”

**“For virtual services in particular, the addressable market has grown rapidly, thanks to rapid take-up of HSD.** HSD provided through either cable or DSL appears to be a viable last mile transport path for VoIP. We estimate that HSD services are now available to more than 80% of cable customers and some 90% of total homes in North America (including DSL). We estimate that some 11% of U.S. homes now have a broadband cable connection and a further 5% have DSL. (In Canada, some 30% of homes have a HSD connection.)”

**“We have seen major shifts in how residential phone services are marketed and used.** We believe these changes strengthen the case for non-conventional wireline phone service.

- **Customers increasingly use multiple services** for communications: wireline, wireless, email, instant messaging, both at home and at work. With voice mail, phone service is as much a messaging service as a real-time communications service. Telecom services are increasingly purchased in bundles – so that a “superior” phone service may not win the day if a competitor’s bundle offers better overall value.
- **Wireless has become the primary (or only) line for a growing number of users** (now estimated at 7mn in the U.S.) Wireless usage, now at 475 minutes per month in the U.S., is approaching 40% of average home wireline usage. The increased penetration (and, crucially for the U.S. world-leading usage rates) suggest that customers are likely to be more tolerant of attractively priced/high utility telecom service offerings that do not match traditional landline reliability/quality levels.
- **E-mail and web-based communications are rising in importance** – to some degree at the expense of phone service. At the same time, customers are increasingly accustomed to doing business on the web – to order products and services (telephony included) and to send and receive bills for it.”

# Calling via Internet has suddenly arrived

By Paul Davidson USA TODAY

Mark Jaffe of St. Louis recently threw caution to the wind and ditched his trusty SBC Communications local phone service in favor of an offering from an Internet phone start-up called Vonage.

Now his calls travel over the Internet via his cable broadband line. His typical \$120 monthly bill has been cut to a flat \$39.99 rate for unlimited local and long-distance calls and features such as caller ID. Because his physical location is irrelevant for Internet phone service, he was able to choose a number with a San Francisco area code (415), allowing a close friend in that city to dodge long-distance charges. Plus, via a PC he can hear his voice mail by clicking on e-mail, and he can update his call-forwarding, track his calls and bills and even change his phone number, all on the Web.

"There was initial concern," says Jaffe, 36, noting the dubious quality and reliability of Net calling in the late 1990s. But, "Quality is phenomenal, and it's very cost-effective."

Making phone calls on the Internet has suddenly arrived — and it's poised to rock the telecommunications industry.

Until about 18 months ago, Internet calls meant tinny, ham-radio like connections over PC microphones and speakers. It was largely the province of hobbyists who gladly put up with the jittery voice quality for the chance to beat the system, make free calls and cultivate a pioneer spirit.

But technological advances and broadband's growth have made calls on the Net, or Internet-like private networks, roughly equivalent to traditional phone service.

"It's beginning to transition from something only a real Internet-savvy person would do into something ordinary folks can do," says Jupiter Research analyst Joe Laszlo.

The number of U.S. households making Internet calls with standard phones is expected to grow from about 100,000 today to 4 million in 2007, says In-Stat/MDR.

There is a catch: You generally need to already have a broadband connection, which costs about \$40 a month. The number of such cable modem and phone company DSL lines is projected to double to about 40 million in 2007, Jupiter says.

The technology is not new. Since the mid-1990s long-distance companies have sent a growing portion of their intercity traffic via "Voice over Internet Protocol (VoIP)" technology, though customers don't realize it. VoIP is similar to the public Internet service offered by firms like Vonage — both convert voice into digitized packets — but instead it uses private networks.



Last year, 10% of international calls used VoIP, says research firm TeleGeography. Prepaid calling cards that charge a few pennies a minute use VoIP networks. And in countries like Brazil and Japan, VoIP calling is taking off.

In the USA, Internet phone calling has been slower to develop. A handful of start-ups, such as Vonage and Packet8, offer service that lets customers plug their traditional phones into company-supplied adapters, which, in turn, hook into any broadband line.

### **Cable could drive adoption**

But the big market shake-up is expected to come from heavy marketing by the cable industry, which has an existing customer base and can bundle phone with TV and Internet services.

"I think cable companies are going to take up to 20% market share" from the regional Bells, says analyst Norm Bogen of In-Stat/MDR.

VoIP is already making inroads among businesses. Nearly 10% of companies that use private networks to link their far-flung locations have moved their intra-office voice calls off the public network and onto VoIP connections, Forrester Research says. They are seeing as much as a 50% decrease in local and long-distance charges.

That's because Internet voice networks are 20% to 50% cheaper to deploy than standard ones, experts say. Traditional circuit-switched phone networks use expensive call-routing computers and wires to link you and the person you're calling for the entire conversation.

Internet-based calls break up voice into digitized "packets," each of which takes the most efficient route as it shares wires with other Internet traffic. As the packets near the destination, they are reassembled as a voice.

Within 20 years, nearly all calls will be Net-based, experts say, as even the Bells phase out old-style networks in favor of VoIP technology. "I doubt there'll be any more significant investment in" circuit-switched gear, says Bob Atkinson of the Columbia Institute for Tele-Information.

Verizon spokesman Eric Rabe acknowledges a transition is coming, but says it will "take a long, long time." For now, he says, "I'd be surprised if (Internet calling) were as reliable and dependable as our service."

### **A rocky start for Web calling**

It certainly wasn't in 1995, when firms such as Net2Phone started letting people call free from PC to PC using Internet Protocol (IP) addresses.

In the late 1990s, Cisco, Lucent and others built adapters to convert analog voice signals into packets at the caller's home, so regular phones could be used. They also developed "gateways" to translate packets and IP addresses into voice conversations and phone numbers at phone

switching stations so calls could use traditional phone lines. Still, echoes and delays marred calls.

But the past few years have brought better equipment, improved technology and more high-speed lines. Ironically, the telecom crash may have spurred some of the advances. "During the downturn, a lot of the engineering went into chips and applications" for the Internet, says Jeff Pulver, a founder of both Vonage and Free World Dialup, another Internet phone start-up.

Vonage was the first company to leverage the technology with a nationwide offering last year. Besides its \$40 all-you-can-call service, it offers a \$25.99 plan with 500 minutes of long-distance. There's a \$29.99 activation fee.

Customers can use the service wherever they can plug a phone and the adapter into a broadband line — not just at home. The phone number stays with the device.

Vonage has 34,000 subscribers, is adding 1,400 a week and expects to reach 1 million by 2006. It recently made distribution deals with No. 3 Internet service EarthLink and two midtier cable firms.

"We gave consumers an experience that's almost identical to what they're used to," Vonage CEO Jeffrey Citron says.

For EarthLink, says Vice President Erika Jolly, adding voice to broadband service reduces customer defections.

Citron concedes quality problems in a small percentage of calls. Experts say that's partly because voice packets may sometimes have to give way to data packets as they share paths on the Internet, delaying the arrival of the voice signal.

Cable companies say their more uniform private networks are able to give priority to the voice packets, virtually eliminating such glitches. While most big cable companies have dabbled in voice offerings using standard switches, they were not planning full-scale rollouts until the arrival of reliable VoIP.

Now, four of the biggest providers — Comcast, Cox Communications, Time Warner Cable and Cablevision — plan to launch Net-style voice service across their regions in the next few years. Small providers are expected to partner with suppliers like Net2Phone and Vonage.

For cable operators, the low cost structure of VoIP calling makes local phone service "a much more attractive business to be in," says Tanya Van Court, vice president of Cablevision, which offers service in western Long Island and expects to offer it by the end of the year to all 4.4 million of its customers.

Cablevision's package is \$34.95 for unlimited local and long-distance and five phone features. For a similar package, the local Bell, Verizon

Communications, charges Long Island customers \$59.95. MCI offers a \$49 bundle.

Unlike Vonage, which carries the call across the Internet all the way to wherever the recipient may be, cable companies now typically pay long-distance carriers to transport calls out of their system area, adding to their cost. Comcast, however, is building its own national IP network to skirt those fees.

### **New phone features a draw**

Van Court says the big selling point for Web-based calling will be a whole new range of features. "We think that a year or two from now, customers won't be interested in standard telephone service. They'll be interested in how to enhance their Internet experience with voice."

She cites integrated text- and voice-based chats and the ability to use your PC to customize phone features in real time. For example, you can forward calls to another number, then have them go to voice mail if there's no answer. And Time Warner Cable is looking to provide Caller ID and voice mail notification on your TV screen, doing away with the need to get up from the recliner when the phone rings, says Gerry Campbell, senior vice president for voice for Time Warner, which now has about 1,600 customers in the Portland, Maine, and Rochester, N.Y., areas paying \$39.95 for an unlimited calling service.

"We've cut our phone bill in half," says Sandy Franklin, 54, of Gorham, Maine. The service, she says, had some glitches in the initial weeks, but has worked seamlessly since.

Says Cox Communications' Dianna Mogelgaard: "We're looking to be the primary telephone provider." And while Cablevision requires voice customers to also subscribe to high-speed service, Comcast says subscribers will simply need access to a cable broadband line.

The technology has drawbacks. Internet-based phones won't work during a power outage. Most cable companies are considering equipping their modems with battery packs that last up to 16 hours. Cordless regular phones have the same power issue, however. And the prevalence of cell phones has made it less of a concern.

More significant, Vonage customers must register for 911 service. Even then, dispatchers cannot see the caller's phone number and address automatically, as they do with a call from a traditional phone. For that reason, many subscribers use Vonage as a second phone line.

But cost alone has businesses already embracing Net calling. Last year, the Appleton School District in Wisconsin replaced its phone system with a Mitel Systems IP network linking its 26 schools. Now, phone calls between the schools travel over the same private lines that carry data, slashing phone bills 40%.

For Crate & Barrel, a similar IP network from SBC for its Northbrook, Ill., headquarters means not having to run new wires when employees move

offices, says phone manager Mark Carrier. And the system lets employees use the phone screen to dial a colleague by clicking on a directory name and even to check weather and stocks.

SBC also is rolling out a service that would permit corporate employees to plug their IP phones and laptops into any broadband line.

One price edge for Net-based calls may be short-lived, however. Because Internet traffic is unregulated, IP voice customers don't pay most phone taxes, such as universal service fees. But as the market grows, the Federal Communications Commission is expected to impose such charges.

Also, several states may raise the fees VoIP carriers such as AT&T pay the Bells to transfer Internet-based calls to their local networks, bringing those charges a bit closer to regular voice calls. Yet IP calls should still be cheaper, and observers eventually expect giants like AT&T and MCI to offer the service — on their own or by buying start-ups such as Vonage.

When that happens, "People are going to sign up for it in large volumes," says AT&T Vice President Robert Quinn.

# Cable Datacom News

JULY 2003

## Small MSOs Make Initial Moves Into VoIP Service

*Vonage and Gemini Voice Score Pacts With Tier 2 and 3 Operators*

JULY 01, 2003

By Alan Breznick, Editor, *Cable Datacom News*

In a turning point for the cable IP telephony business, three small-to-mid-sized cable operators have signed carriage deals with turnkey voice-over-Internet-Protocol (VoIP) providers. The deals follow commitments by two major MSOs--Time Warner Cable and Cablevision Systems--to move forward with pilot commercial rollouts this summer.

Advanced Cable Communications, Armstrong Cable and Adams Cable Service all announced VoIP agreements at the NCTA show in Chicago last month. Advanced and Armstrong both inked pacts with Vonage Holdings while Adams signed a deal with Gemini Voice Solutions. The three MSO agreements together cover more than 300,000 cable subscribers in smaller and rural markets in New York, Pennsylvania, Ohio, Maryland, West Virginia, Kentucky and Florida.

Under its agreements with Advanced and Armstrong, Vonage will provide private-label digital phone service to the two MSOs' broadband subscribers. In both cases, cable modem customers will be able to get unlimited local and long-distance service for a flat monthly fee of \$39.99. VoIP subscribers will also receive such standard telephony features as call waiting and caller ID for no extra charge, plus some extra proprietary features.

"We provide the service, they provide the support and customer devices," said Daniel Elwell, a Vonage major account executive. Besides delivering the service, Vonage will also handle customer billing. Terms of the two deals were not disclosed. Both cable operators aim to introduce phone service by the end of the summer.

Elwell predicted that the VoIP offerings will help boost broadband subscriptions for the two MSOs. Armstrong, with a total of 212,000 basic cable subscribers in five states, now has 65,000 broadband Internet customers. Advanced, with 75,000 overall basic cable customers, now has 9,000 high-speed data customers in two Florida markets.

"It's a perfect application for anyone," Elwell said. Vonage, which has been heavily courting cable operators, now boasts more than 30,000 VoIP subscribers in 77 markets through its earlier distribution pact with EarthLink and its own marketing efforts. Elwell said the company, which is so far getting 60% of its subscribers from cable and 40% from DSL, is shooting for at least 100,000 customers by the end of the year. "The other operators are coming to the table," he said.

Jud Stewart, vice president of marketing for Armstrong, said his company originally planned to enter the IP telephony business on its own. It even started testing a VoIP service with its employees. But, feeling too small to tackle the complexities of the business itself right now, it has switched gears and turned to Vonage.

"We're just not big enough to drive that wagon," said Stewart, who still hopes to develop a home-grown Armstrong service down the line. The Vonage deal offers "a really nice first step into telephony," he said. "This is good for at least two years."

Stewart said he's aiming to achieve 2% penetration of Armstrong's customer base in the first six to eight months. Longer term, he's seeking to reach a 10% take rate.

In the show's other VoIP deal, Adams Cable, a 24,000-subscriber MSO, said it will use Gemini Voice's "turnkey" platform to offer both local and long-distance phone service to its high-speed data subscribers in Pennsylvania and New York. Under the agreement, Gemini will supply Adams Cable with all call routing, termination, tracking and rating, as well as local direct dial and calling features and billing integration services. Gemini will also provide tier-2 and tier-3 live customer support and its "Gemini Gateway" customer premise equipment.

While Vonage and Gemini Voice announced distribution deals at the convention, other VoIP players scrambled to entice curious cable operators too. Cedar Point Communications, Net2Phone and others showcased their equipment and services and promoted their ability to launch smaller MSOs into the telephony business quickly and smoothly.

Net2Phone, for example, showed off a model of its pilot IP telephony deployment in Puerto Rico. In that market, Liberty Cablevision has signed up 200 paying VoIP customers in a very limited rollout since the start of the year, after conducting field tests last summer and fall.

"We got Liberty Cablevision up and running in 60 days in Puerto Rico," boasted Richard Gilbert, director of strategic planning for Net2Phone. In an interesting touch, Liberty Cablevision is introducing broadband data and primary-line telephony service at the same time on the island. Gilbert said the cable operator, which has about 300,000 basic cable subscribers, is shooting to have 4,000 telephony customers by the end of the year.

Besides its work for Liberty, Gilbert said, Net2Phone is also running a VoIP trial for a second, undisclosed cable operator right now. He's hoping to land at least two to three service trials by the close of the year. "A number of cable operators are just very eager to dip their toe in the water," he said. "They want to try a VoIP solution and see how it goes."

This eagerness to get started, Gilbert argued, is why such cable operators as Armstrong and Advanced have already struck deals with Vonage. "It's an easy, quick way to get in; it's shipping out a box," he said. "Our deployment is a little more rigorous. It needs system integration work."

In Canada, Galaxy Telecom is working to offer a turnkey IP telephony solution to cable operators. Vancouver-based Galaxy has started a technology trial with Whistler Cable Television in British Columbia.

The growing number of players seeking to provide outsourced IP telephony solutions are clearly hoping for better luck than the crop of ISPs that emerged in the late 1990s to offer turnkey cable modem solutions to tier 2 and 3 cable operators. Most of those companies, like ISP Channel (a subsidiary of Softnet Systems), HSA Corp. and @Home Solutions, ultimately crashed and burned, as their lopsided revenue-sharing business models proved unsustainable. To its credit, Vonage, by going directly to consumers, is seeking to insulate itself from dependence on broadband affiliates for success.

On the large MSO front, Time Warner and Cablevision executives said at the show that they're pushing ahead with their VoIP rollout plans. A Time Warner spokesman said the company has now signed up more than 1,600 IP telephony customers in Portland, Maine since launching its new "Digital Phone" service in April. Available to broadband subscribers, Digital Phone is a primary-line service that offers unlimited local and long-distance calls in the U.S. for \$39.95 a month, along with caller ID, call waiting and other standard telephony features.

"The service offering has been well received," the spokesman said. "It works and it's gotten a lot of response from customers and it's ready to go." He said Time Warner hasn't decided yet when it will launch a big marketing push for the product in Portland.

Pleased with the early results in Portland, one of their two test markets, Time Warner officials expect to introduce VoIP service commercially in Rochester, N.Y., their other test market, before the year is out. Plans also call for launching Digital Phone in at least one or two other markets, including Raleigh, N.C. and/or Charlotte, N.C. and possibly areas of Ohio and Texas.

Cablevision Systems President Tom Rutledge declared that his company will make VoIP available to the MSO's entire footprint--4.4 million homes in the New York area--before the summer is over. Known as "OptimumVoice," the primary-line service offers unlimited local and long-distance dialing to broadband subscribers for \$34.95 a month. Customers also get call screening, forwarding and blocking features.

